

Factor trinomials with a coefficient

$$4x^2 + 11x + 6$$

# Factor trinomials with a coefficient

$$4x^2 + 11x + 6 = 4x^2 + 8x + 3x + 6$$

24  
8 3  
11

$$4x(x+2) + 3(x+2)$$

$$(x+2)(4x+3)$$

# Factor trinomials with a coefficient

$$-9x^2 + \underline{15x} - 4 = -1(\underline{9x^2 - 12x - 3x + 4})$$

$$-1(\underline{9x^2 - 15x + 4})$$

$$\begin{array}{r} 36 \\ -12 \quad -3 \\ \hline -15 \end{array}$$

$$-1(\underline{3x(3x-4)} - \underline{1(3x-4)})$$

$$\boxed{-1(3x-4)(3x-1)}$$

Factor trinomials with a coefficient

$$-2x^2 + x + 15$$

## Factor trinomials with a coefficient

$$\begin{aligned} -2x^2 + x + 15 &= -1(2x^2 - 6x + 5x - 15) \\ &= -1(2x^2 - x - 15) \quad -1(2x(x-3) + 5(x-3)) \\ &\quad \begin{array}{r} -30 \\ -6 \quad \times \quad 5 \\ -1 \end{array} \\ &= \boxed{-1(x-3)(2x+5)} \end{aligned}$$